

State of California
AIR RESOURCES BOARD

Resolution 84-52

October 26, 1984

Agenda Item No.: 84-14-1

WHEREAS, Health and Safety Code Sections 39600 and 39601 require the Air Resources Board (the "Board") to adopt rules and regulations and take all actions necessary for the proper execution of the powers and duties granted to and imposed upon the Board;

WHEREAS, Health and Safety Code Section 39606(b) requires the Board to adopt ambient air quality standards, as defined by Health and Safety Code Section 39014, for the protection of the public health, safety, and welfare, including but not limited to health, illness, irritation to the senses, aesthetic value, interference with visibility, and effects on the economy;

WHEREAS, in accordance with AB 1111 (Stats 1979, ch 567, section 1) and a 1983 directive by the Governor, the Board has reviewed its regulations entitled "Ambient Air Quality Standards," contained in Title 17, California Administrative Code, Sections 70100-70201;

WHEREAS, as a result of these reviews and on the basis of public comment and continuing staff analysis, the Board finds that the proposed explanatory and editorial changes are needed to improve the clarity of the regulations, to eliminate unnecessary or redundant language, and to conform the regulations to current practice, policy, and methodology;

WHEREAS, the Board has determined that the change proposed by the staff regarding the addition of language to authorize use of an equivalent method for the measurement of PM_{10} will be considered at a future Board meeting;

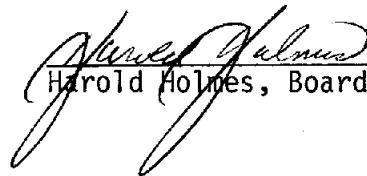
WHEREAS, the California Environmental Quality Act and Board regulations require that no activity having significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available;

WHEREAS, the Board finds that the proposed action will have no adverse impacts on the environment and that therefore no mitigation measures are required; and

WHEREAS, a public hearing has been held in accordance with the provisions of Chapter 3.5 (commencing with Section 11340), Part 1, Division 3, Title 2 of the Government Code.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the amendments to the regulations contained in Title 17, California Administrative Code, Sections 70100-70201, as set forth in Attachment A hereto, and directs the Executive Officer to adopt such amendments after making them available to the public for a period of 15 days; provided, however, that the Executive Officer shall consider such written comments as may be submitted during this period and shall present the regulations to the Board for further consideration if he determines that this is warranted in light of the written comments received.

I hereby certify that the above is a true and correct copy of Resolution 84-52, as adopted by the Air Resources Board.



Harold Holmes, Board Secretary

Amend Title 17, California Administrative Code, Section 70100 to read as follows:

70100. Definitions

(a) Ambient Air Quality Standards. "Ambient air quality standards" are ~~specific~~ specified concentrations and durations of air pollutants which reflect the relationship between the intensity and composition of pollution to undersirable effects.

(b) Most Relevant Effects. "Most Relevant Effects," shown in the Table of Ambient Air Quality Standards, are the effects which the standards are intended to prevent or abate.

(c) Parts Per Million (ppm). "Parts per million" is a volumetric unit of gas concentration, which is numerically equal to the volume of a gaseous contaminant present in one million volumes of air.

(d) Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$). "Micrograms per cubic meter" is a unit of concentration which is numerically equal to the mass of a contaminant (in micrograms) present in a one cubic meter sample of air, measured at ~~standard-conditions~~ EPA reference conditions (corrected to 25 degrees Celsius, 760 torr).

(e) Equivalent Method. "Equivalent Method" is any ~~procedure~~ procedure for measuring the concentration of a contaminant, other than that specified in the air quality standard for the contaminant, which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard.

(f) Prevailing Visibility. "Prevailing visibility" is the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors. Prevailing visibility is determined by the procedure given in "Manual of Surface Observations", U.S. Weather Bureau, Army and Navy "Federal Meteorological Handbook #1," U. S. Departments of Commerce, Defense and Transportation.

(g) Oxidant. Oxidant is a substance that oxidizes a selected reagent that is not oxidizable by oxygen under ambient conditions. ~~for~~ For the purposes of this section, ~~it~~ oxidant includes ozone, organic peroxides, and peroxyacyl nitrates but not nitrogen dioxide. Atmospheric oxidant concentrations are to be measured ~~by the neutral potassium iodide method, corrected for nitrogen dioxide, or by an equivalent method~~ with ozone as a surrogate by ultraviolet photometry, or by an equivalent method.

(h) Carbon Monoxide (CO). Carbon monoxide is a colorless gas, odorless under atmospheric conditions, having the molecular form CO. ~~Atmospheric carbon monoxide concentrations are to be measured by the nondispersive infrared method, corrected for interferences of carbon dioxide and water vapor, or by an equivalent method.~~

(i) Sulfur Dioxide (SO₂). Sulfur dioxide is a colorless, irritating gas under atmospheric conditions, having the molecular form SO₂. ~~Atmospheric sulfur dioxide concentrations are to be measured by the conductimetric method, or by an equivalent method.~~

(j) Suspended Particulate Matter. Suspended particulate matter refers to atmospheric particles, solid and liquid, except uncombined water. Atmospheric suspended particulate matter is to be measured by the high volume sampler method or by an equivalent method for purposes of determining total suspended

particulate and by a PM₁₀ sampler or/εquivalent/method for purposes of monitoring for compliance with the Suspended Particulate Matter standard (PM₁₀).

(k) Visibility Reducing Particles. Visibility reducing particles are atmospheric particles ~~in-the-light-scattering-size-range~~ which significantly scatter or absorb light. The effect of these particles on prevailing visibility is to be determined by direct observation, or by an equivalent method.

(l) Hydrogen Sulfide (H₂S). Hydrogen sulfide is a colorless gas having the molecular form H₂S. ~~Atmospheric-hydrogen-sulfide-concentrations-are-to-be-measured-by-the-cadmium-hydroxide-Straetan-method.~~

(m) Nitrogen Dioxide (NO₂). Nitrogen dioxide is a red-brown gas, odorless under atmospheric conditions, having the molecular form NO₂. ~~Atmospheric-nitrogen-dioxide-concentrations-are-to-be-measured-by-the-Saltzman Reagent-method, or-by-an-equivalent-method.~~

(n) Lead (particulate). Lead (particulate) is suspended particulate matter containing lead (Pb).

(o) Sulfates. Sulfates are the water soluble fraction of suspended particulate matter containing the sulfate radical (SO₄=) including but not limited to strong acids and sulfate salts, as measured by AIHL method No. 61 (Turbidimetric Barium Sulfate)/ or equivalent method.

(p) Vinyl Chloride. Vinyl chloride is a colorless gas with the molecular form Ch₂-CHCl; chloroethene.

NOTE: Authority cited: Section 39601, Health and Safety Code. Reference: Sections 39600, 39602, and 39607, Health and Safety Code.

Amend Title 17, California Administrative Code, Section 70101 to read as follows:

~~Ambient air quality standards are not intended to provide a sharp line dividing air of satisfactory quality from air of unsatisfactory quality. However, pollution levels below those shown in the standards should not ordinarily produce the associated effects.~~

The objective of ambient air quality standards is to provide a basis for preventing or abating the effects of air pollution, including effects on health, aesthetics and economy. ~~Since the objective is to improve air quality,~~ the The standards should not be interpreted as ~~permitting,~~ encouraging, or condoning degradation of present air quality in any air basin which now has air quality superior to that stipulated in the standards. Pollution levels below those shown in the standards should not ordinarily produce the associated effects.

In determining compliance with the standards through air monitoring, the sites and conditions of air sampling should be so chosen as to realistically represent the exposures of people, animals, vegetation and materials.

Ambient air quality standards ~~will~~ shall be reviewed ~~annually in the light of new information and experience, to consider whether existing standards need to be revised or additional standards established~~ and subject to modification whenever substantial pertinent new information becomes available and at least once every five years. To the extent feasible, review of a standard shall be coordinated with the review of any corresponding federal standard by the Environmental Protection Agency.

NOTE: Authority cited: Section 39601(a), Health and Safety Code.
Reference: Sections 39600 and 39602, Health and Safety Code.

Amend portion of table in Section 70200, Title 17, California Administrative Code, to read as follows:

70200. Table of Standards, -Applicable-Statewide.***

Substance	Concentration and Methods*	Duration of Averaging Periods	Most Relevant Effects	Comments
* * * * *				
Visibility Reducing Particles	In sufficient amount to reduce <u>visibility***</u> visibility to less than 10 miles when relative humidity is less than 70%.	1 observation	Visibility Impairment on days when relative humidity is less than 70%.	
Visibility Reducing Particles (Applicable only in Lake Tahoe Air Basin)	In sufficient amount to reduce the prevailing <u>visibility***</u> visibility to less than 30 miles when relative humidity is less than 70%.	1 observation	Reduction in scenic quality on days when the relative humidity is less than 70%.	
Suspended Particulate Matter (PM ₁₀)	50 $\mu\text{g}/\text{m}^3$ PM ₁₀ ** 30 $\mu\text{g}/\text{m}^3$ PM ₁₀ **	24 hour sample 24 hour samples, annual geometric mean	Prevention of excess deaths from short-term exposures and of exacerbation of symptoms in sensitive patients with respiratory disease. Prevention of excess seasonal declines in pulmonary function, especially in children.	This standard applies to suspended matter as measured by PM ₁₀ sampler, which collects 50% of all particles of 10 μm aerodynamic diameter and collects a declining fraction of particles as the diameter increases, reflecting the characteristic of lung deposition.†
Lead (Particulate)	1.5 $\mu\text{g}/\text{m}^3$ AIHL Method No. 54 (Atomic Absorption) or equivalent	30-day average	Increased body burden, impairment of blood formation and nerve conduction	

* * * * *

Nitrogen Dioxide	0.25 ppm, Saltzman Gas Phase Chemiluminescence	1 hour	a. At slightly higher dosage effects are observed in experimental animals, which imply a risk to the public health. b. Produces atmospheric discoloration	
Sulfates	25 µg/m ³ total sulfates, AIHL #61 (Turbidimetric Barium Sulfate)	24 hours	a. Decrease in ventilatory function b. Aggravation of asthmatic symptoms c. Aggravation of cardio-pulmonary disease d. Vegetation damage e. Degradation of visibility f. Property damage	This standard is based on a Critical Harm Level, not a threshold value.

* Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

** These standards are violated when concentrations exceed those set forth in the body of the regulation. All other standards are violated when concentrations equal or exceed those set forth in the body of the regulation.

~~***-Prevailing-visibility-is-defined-as-the-greatest-visibility-which-is-attained or-surpassed-around-at-least-half-of-the-horizon-circle,-but-not-necessarily in-continuous-sectors-~~

*** Applicable statewide unless otherwise noted.

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NOTE: Authority cited: Sections 39600, 39601(a) and 39606(b), Health and Safety Code. Reference: Sections 39014, 39606(b), 39701 and 39703(g), Health and Safety Code.

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* * * * *

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*** Applicable statewide unless otherwise noted.

* * * * *

NOTE: Authority cited: Sections 39600, 39601(a) and 39606(b), Health and Safety Code.
Reference: Sections 39014, 39606(b), 39701 and 39703(g), Health and Safety Code.

Amend Section 70200.5, Title 17, California Administrative Code, to read as follows:

70200.5. Ambient Air Quality Standards for Hazardous Substances.*

Substance	Concentration and Methods	Duration of Averaging Periods	Most Relevant Effects	Comments
Vinyl Chloride (Chloroethene CH ₂ =CHCl)	0.010 ppm ARB method-specified in Staff-Report 78-8-3 Haagen-Smit Lab Method No. 101 (Tedlar Bag Collection Gas Chromatography)	24 hours	Known human and animal carcinogen	Low-level effects are undefined, but are potentially serious. Level is not a threshold level and does not necessarily protect against harm. Level specified is lowest level at which violation can be reliably detected by the method specified. Ambient concentration at or above the standard constitute an endangerment to the health of the public.

* Applicable statewide unless otherwise noted.

NOTE: Authority cited: Section 39601, Health and Safety Code. Reference: Section 41700, Health and Safety Code.

State of California
AIR RESOURCES BOARD

Public Hearing to Consider Amendments to Regulations Regarding Ambient Air
Quality Standards

Hearing Date: October 25, 1984
Public Availability Date: November 19, 1984

On October 25, 1984, the Air Resources Board (the "Board") approved amendments to its regulations re: Ambient Air Quality Standards in order to improve the clarity of the regulations, eliminate unnecessary or redundant language, and to conform the regulations to current practice, policy, and methodology. While no changes were made to the ambient standards themselves, the Board approved changes to definitions and measurement methods for several air pollutants, approved amendments to the general statement of policy and scope regarding the ambient standards, and approved clarifying changes to the table of standards. The regulations which would be amended are set forth in Sections 70100 - 70201 of Title 17, of the California Administrative Code. Attached is a copy of the Board's Resolution 84-52, approving these amendments.

The approved amendments are identical to those previously proposed by the staff and outlined in the public hearing notice on this matter, dated August 28, 1984, with several exceptions. Language concerning an equivalent method for measuring PM₁₀ was deleted, language specifying use of an equivalent method for measuring sulfates was added, and language re: the purpose of the ambient air quality standards was deleted from the policy statement. Appended to Resolution 84-52 are the approved amendments, showing the deletions from the originally proposed language in slashes, and the additions to the originally proposed language in double underlines.

In Resolution 84-52 the Board directed the Executive Officer to adopt the approved amendments after making them available to the public for a period of 15 days, provided that the Executive Officer is required to present the regulations to the Board for further consideration if he determines that this is warranted in light of the written comments received. Any written comments on the changes approved by the Board must be received by the Board Secretary, Air Resources Board, P. O. Box 2815, Sacramento, California 95812 by 5:00 p.m. on December 4, 1984, to be considered.

Memorandum

To : Gordon Van Vleck
Secretary
Resources Agency

Date : February 1, 1985

Subject: Filing of Notice of
Decisions of the Air
Resources Board

(Harold Holmes)
From Harold Holmes
Board Secretary
Air Resources Board

Pursuant to Title 17, Section 60007 (b), and in compliance with Air Resources Board certification under section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decision and response to environmental comments raised during the comment period.

ATTACHMENTS

84-38
84-41
84-42
84-52

FILED AND POSTED BY
OFFICE OF THE SECRETARY

FEB 5 1985

Resources Agency of California

State of California
AIR RESOURCES BOARD

Response to Significant Environmental Issues

Item: Public Hearing to Consider Amendments to Regulations Regarding
Ambient Air Quality Standards

Agenda Item No.: 84-14-1

Public Hearing Date: October 25, 1984

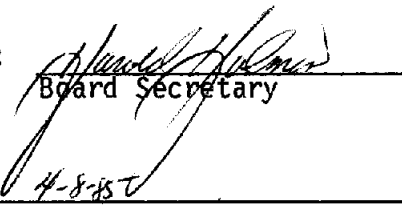
Response Date: December 4, 1984

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant environmental
issues pertaining to this item. The staff report identified no
adverse environmental effects.

Response: N/A

Certified:


Board Secretary

Date:

4-8-85